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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,279	02/01/2001	David Karl Bidner	200-0824	8275

7590

04/01/2003

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EXAMINER

TRAN, DALENA

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/775,279

Applicant(s)

BIDNER ET AL.

Examiner

Dalena Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 12/18/02. Claims 1-3, 5-10, and 12 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, and 5, are rejected under 35 U.S.C. 103(a) as being unpatentable over Minowa et al. (6,142,907), in view of Yamada et al. (5,988,307).

As per claim 1, Minowa et al. disclose a method of controlling a vehicle drive having a 4 mode of operation and other modes of operation using an electronic control system providing a torque output in response to driver demand, comprising: controlling torque output of one of an engine and transmission of vehicle when the vehicle is in the 4x4 mode using a calibration table stored in system memory and indicating a relationship of torque output as a function of accelerator pedal position and a speed parameter for reducing sensitivity of torque output to accelerator pedal position in the 4x4 mode of operation (see columns 3-4, lines 53-44; and columns 5-6, lines 1-67). Minowa et al. do not disclose controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation. However, Yamada et al. disclose controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation using a different calibration

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table stored in system memory and indicating a different relationship of torque output as a function of accelerator pedal position and a speed parameter (see columns 21-24, lines 43-17; and columns 41-43, lines 9-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Minowa et al. by combining controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation using a different calibration table stored in system memory and indicating a different relationship of torque output as a function of accelerator pedal position and a speed parameter for detecting a drive mode of the motor vehicle selectable between other mode of operations.

As per claim 2, Minowa et al. do not disclose transmission output shaft torque. However, Yamada et al. disclose the torque output of calibration table comprises a transmission output shaft torque value determined in response to accelerator pedal position and transmission output shaft speed (see columns 2-3, lines 9-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Minowa et al. by combining the torque output of calibration table comprises a transmission output shaft torque value determined in response to accelerator pedal position and transmission output shaft speed for increasing transmission output torque to improve vehicle operating conditions.

As per claim 3, Minowa et al. do not disclose output shaft torque value is provided for a drive gear mode. However, Yamada et al. disclose output shaft torque value is provided for a drive gear mode (see columns 43-44, lines 18-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Minowa et al.

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by combining output shaft torque value is provided for a drive gear mode for applying a control signal corresponding to the selected range.

As per claim 5, Yamada et al. discloses the speed parameter is engine speed for a vehicle drive comprising a manual transmission (see columns 24-26, lines 18-16).

4. Claim 7, is rejected under 35 U.S.C.103(a) as being unpatentable over Sakai (4,715,467) in view of Yamada et al. (5,988,307).

As per claim 7, Sakai discloses a method of controlling a vehicle drive having a 4x4 low mode of operation and other modes of operation using an electronic control system providing a torque output in response to driver demand, comprising: controlling torque output of one of an engine and transmission of vehicle when the vehicle is in the 4x4 low mode using a calibration table stored in system memory and indicating a relationship of torque output as a function of accelerator pedal position and a speed parameter for reducing sensitivity of torque output to accelerator pedal position in the 4x4 low mode of operation (see columns 5-8, lines 21-21). Sakai does not disclose controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation. However, Yamada et al. disclose controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation using a different calibration table stored in system memory and indicating a different relationship of torque output as a function of accelerator pedal position and a speed parameter (see columns 21-24, lines 43-17; and columns 41-43, lines 9-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Sakai by combining controlling torque output of one of an engine and transmission of vehicle when the vehicle is in one of the other modes of operation using a

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different calibration table stored in system memory and indicating a different relationship of torque output as a function of accelerator pedal position and a speed parameter for detecting a drive mode of the motor vehicle selectable between other mode of operations.

5. Claims 8-10, and 12 are system claims corresponding to method claims 1-2,5, and 7 above. Therefore, they are rejected for the same rationales set forth as above.

6. Claim 6, is rejected under 35 U.S.C.103(a) as being unpatentable over Minowa et al. (6,142,907), and Yamada et al. (5,988,307), further in view of Taga et al. (5,873,801).

As per claim 6, Minowa et al., and Yamada et al. do not disclose the speed parameter is transmission output shaft speed for a vehicle drive comprising an automatic transmission. However, Taga et al. disclose the speed parameter is transmission output shaft speed for a vehicle drive comprising an automatic transmission (see columns 5-7, lines 57-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Minowa et al., and Yamada et al. by combining the speed parameter is transmission output shaft speed for a vehicle drive comprising an automatic transmission for controlling a four-wheel drive for a motor vehicle comprises a drive mode switch for detecting a drive mode of the motor vehicle selectable between other mode of operation.

Remarks

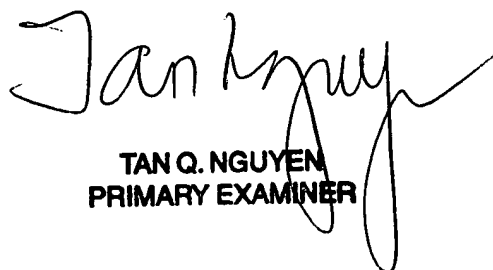
7. Applicant's argument filed on 12/18/02 has been fully considered and they are deemed to be persuasive. However, upon updated search, the new ground of rejection has been set forth as above.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 701-308-1113.


TAN Q. NGUYEN
PRIMARY EXAMINER

/dt

March 23, 2003